



CHAOS AMPLIFIERS

Service Manual

MODEL: CH1000

SPECIFICATIONS

Maximum power output (2 Ohms): 500W x 4ch

RMS power Output: 200W x 4ch

Bridged Power Output: 1000W x 2ch

Frequency response: 9 - 50KHz

Harmonic distortion: 0.01%

S/N Ratio: 130dB

Power Source Voltage: 14.4V

Ground: Negative

Power consumption: 25A (with 125Wx2 rated output)

External dimensions: 300(W)x65(H)x586(D)mm

To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them. The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

2. Place the parts and wiring back in their original positions after replacement or re-wiring. For proper circuit construction, use of insulation tubes, bonding, gaps to PCB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection. If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

3. Check for safety after repair. Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots. If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

4. Caution in removal and making wiring connection to the parts for the automobile. Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

5. Cautions regarding chips.

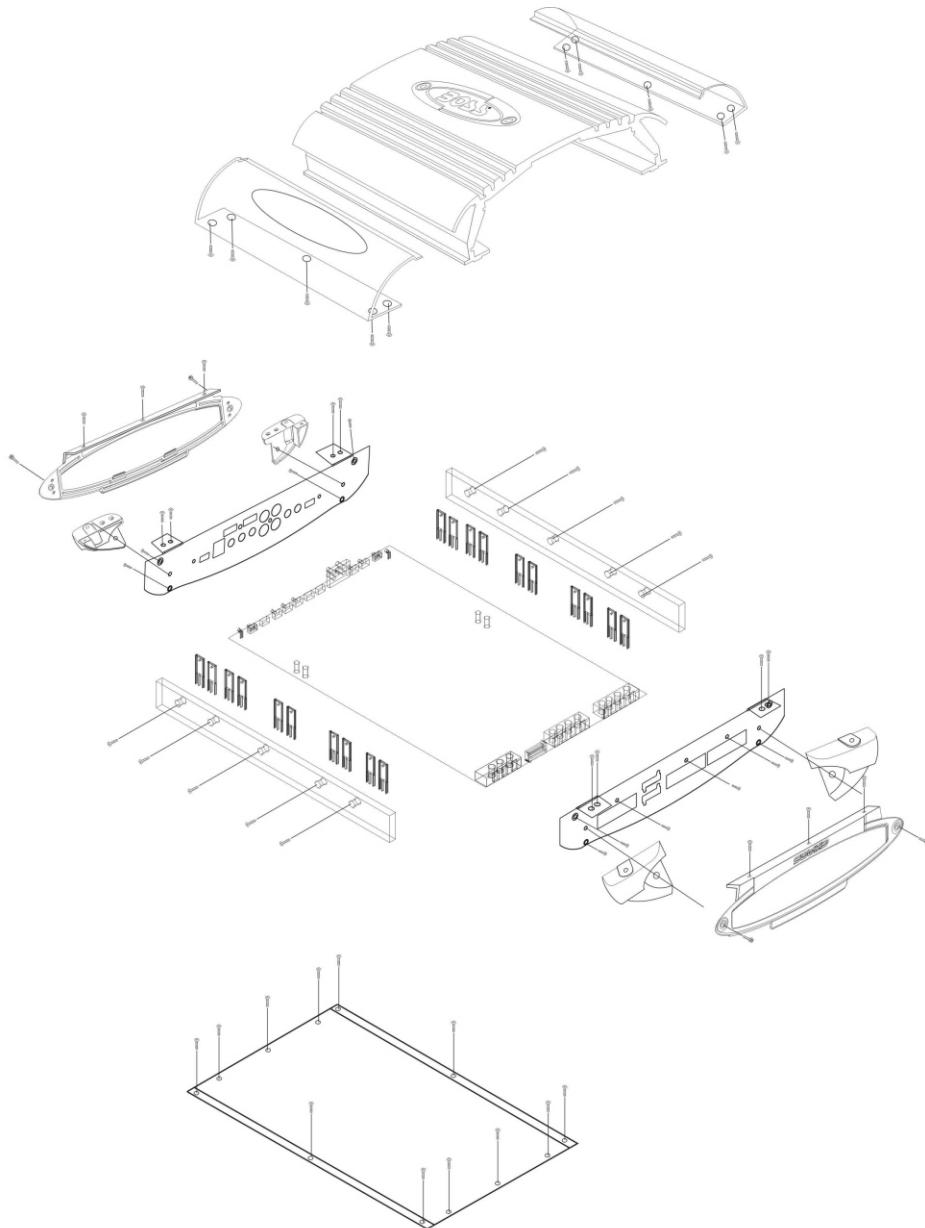
Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

6. Cautions in handling flexible PCB

Before working with a soldering iron, make sure that the iron tip temperature is around 270... Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

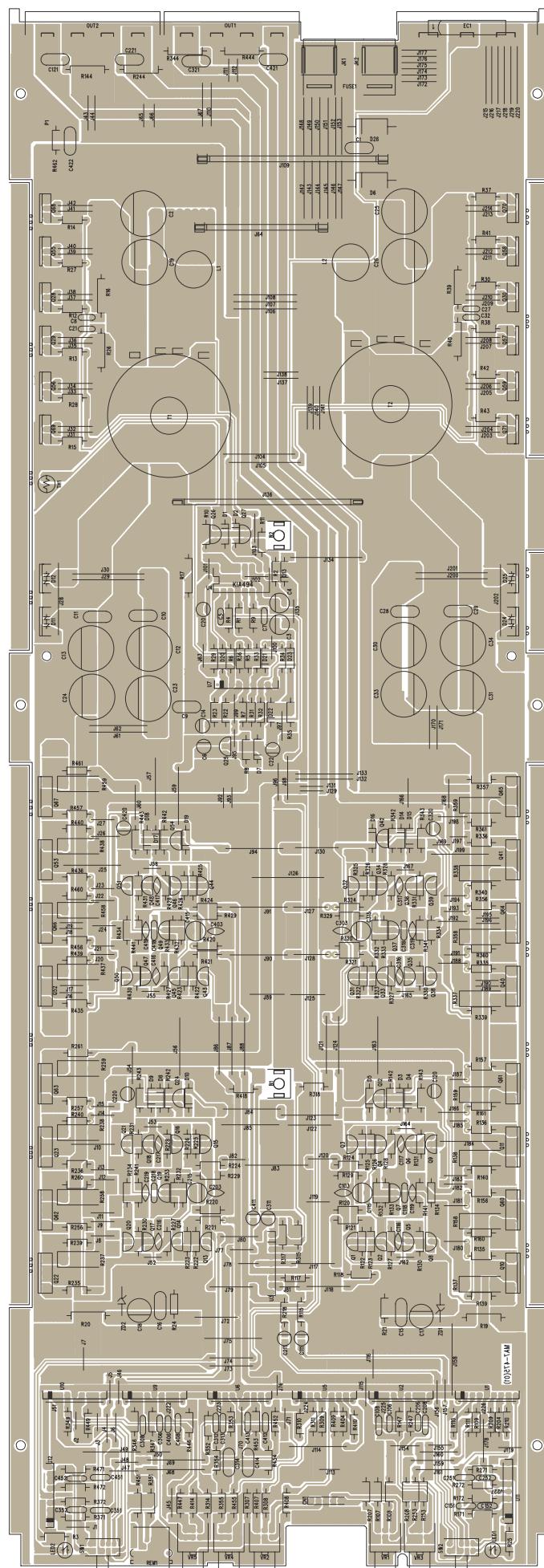
EXPLODED VIEW



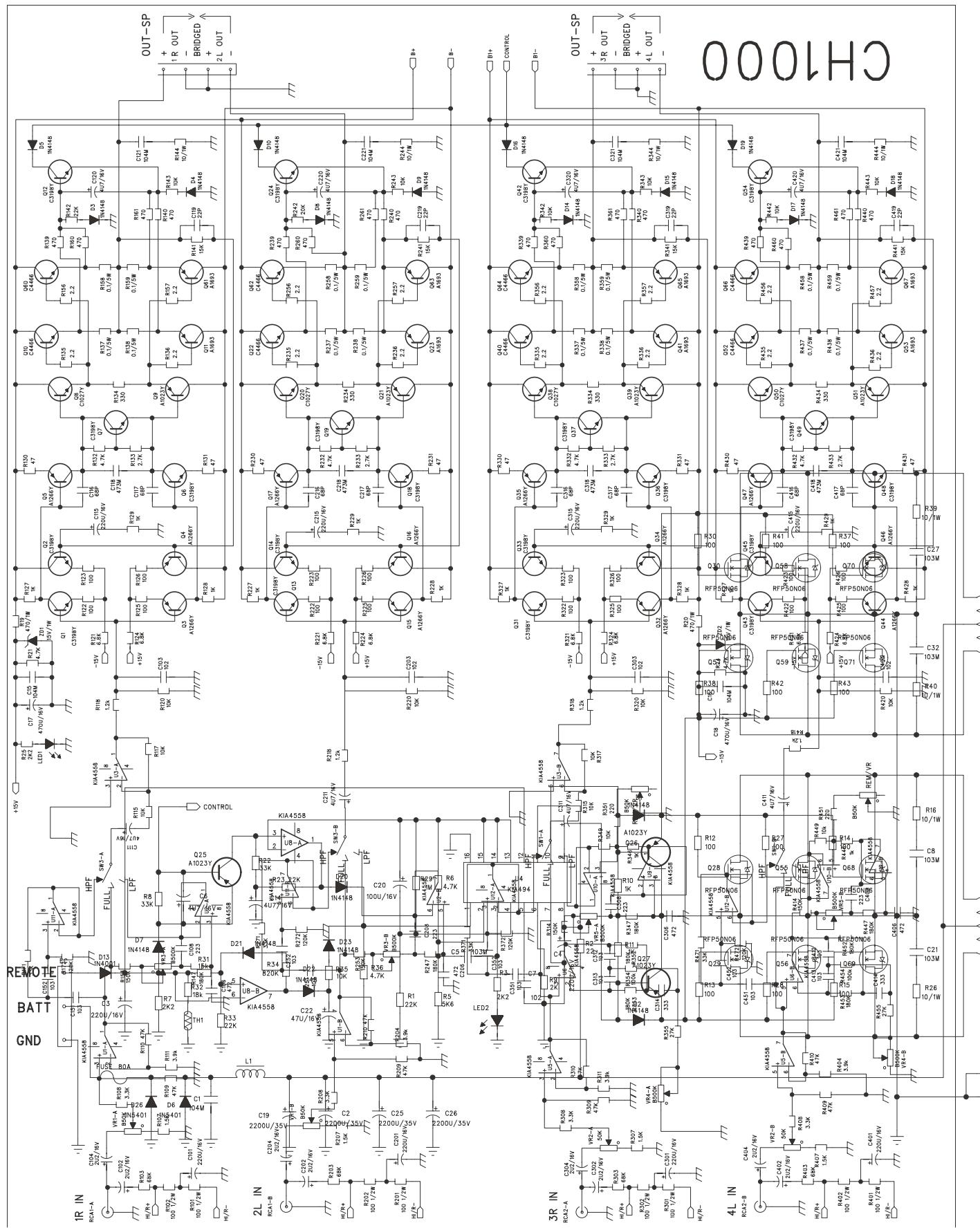
EXPLODED VIEW PART LIST

ITEM	Description	Mfr's Part No.
1	Heat sink	MH-MA7A235-6SXXX
2	Left Chrome Cover	MC-M7A235L-2CXXX
3	Right Chrome Cover	MC-M7A235R-2CXXX
4	Front Panel	MC-M7A2CHF-20XXX
5	Rear Panel	MC-M7A2CHR-20XXX
6	Left Mounting foot	PB-MA7AXXL-C0LEG
7	Right Mounting foot	PB-MA7AXXR-C0LEG
8	Front End Cap	PB-MA7AXX0-CCBRK
9	Rear End Cap	PB-MA7AXX0-CCBRK
10	Bottom Chassis	MB-MA7A235-2SXXX

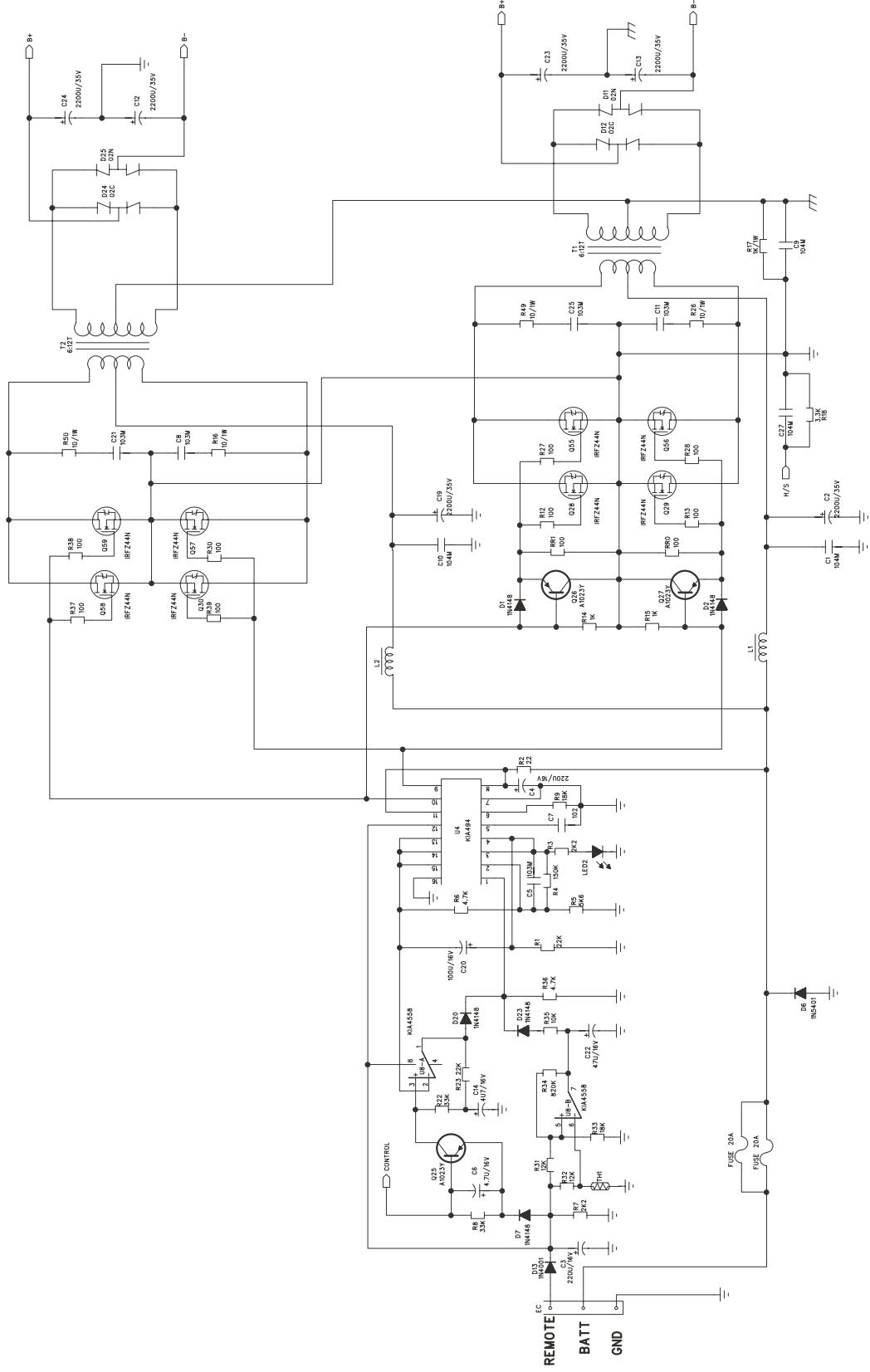
PRINTED CIRCUIT BOARD



CIRCUIT DIAGRAM 1



CIRCUIT DIAGRAM 1



PARTS LIST - 1

PARTS LIST - 2

ER-OG101X0-H5039	RES 100 1/2W	R101,102,201,202,301,302,401,402	8
ER-OG102X0-H2526	RES 1K 1/4W	R10,11,127~129,227~9,327~329,427~9,346,446	16
ER-OG102X0-HA04C	RES 1K 1W	R17	1
ER-OG103X0-H2526	RES 10K 1/4W	R(1,2,3,4)20,(1,2,3,4)42,(1,2,3,4)43,35,115,117,315,317,349,449	19
ER-OG104X0-H2526	RES 100K 1/4W	R354,454	2
ER-OG105X0-H2526	RES 1M 1/4W	R29	1
ER-OG122X0-H2526	RES 1.2K 1/4W	R118,218,318,418	4
ER-OG124X0-H2526	RES 120K 1/4W	R172,272,372,472	4
ER-OG152X0-H2526	RES 1.5K 1/4W	R107,207,307,407	4
ER-OG153X0-H2526	RES 15K 1/4W	R31,141,241,341,441	5
ER-OG154X0-H2526	RES 150K 1/4W	R4,153,253,314,414	5
ER-OG183X0-H2526	RES 18K 1/4W	R32,33	2
ER-OG184X0-H2526	RES 180K 1/4W	R(1,2,3,4)47,353,353,452,453	8
ER-OG220X0-H2526	RES 22 1/4W	R2	1
ER-OG221X0-H2526	RES 220 1/4W	R351,451	2
ER-OG221X0-HB05F	RES 220 2W	R19,20	2
ER-OG222X0-H2526	RES 2.2K 1/4W	R3,7,25	3
ER-OG223X0-H2526	RES 22K 1/4W	R1,9,23	3
ER-OG272X0-H2526	RES 2.7K 1/4W	R133,233,333,433	4
ER-OG273X0-H2526	RES 27K 1/4W	R355,455	2
ER-OG331X0-H2526	RES 330 1/4W	R134,234,334,434	4
ER-OG332X0-H2526	RES 3.3K 1/4W	R108,208,308,408,462	5
ER-OG333X0-H2526	RES 33K 1/4W	R8,22,171,271,371,471	6
ER-OG392X0-H2526	RES 3.9K 1/4W	R111,204,311,404	4
ER-OG470X0-H2526	RES 47 1/4W	R130,131,230,231,330,331,430,431	8
ER-OG471X0-H2526	RES 470 1/4W	R(1,2,3,4)39,(1,2,3,4)40,(1,2,3,4)60(1,2,3,4)61	16
ER-OG472X0-H2526	RES 4.7K 1/4W	R6,21,24,36,132,232,332,432	8
ER-OG473X0-H2526	RES 47K 1/4W	R109,110,209,210,309,310,409,410	8
ER-OG562X0-H2526	RES 5.6K 1/4W	R5	1
ER-OG682X0-H2526	RES 6.8K 1/4W	R121,124,221,224,321,324,421,424	8
ER-OG683X0-H2526	RES 68K 1/4W	R103,203,303,403	4
ER-OG824X0-H2526	RES 820K 1/4W	R34	1
ES-S23D29X-V0098	SWITCH SK23D39	SW1,2	2
ET-C1023X0-PY000	TR KTA1023-Y	Q9,21,25,26,27,39,51	7
ET-C1027X0-NY000	TR KTC1027-Y	Q8,20,38,50	4
ET-C1266X0-PY000	TR A1266Y	3,4,5,15,16,17,32,34,35,44,46,47	12

PARTS LIST - 3

ET-C3198K0-NY000	TR KTC3198-Y	Q1,2,6,7,12,13,14,18,19,24,31,33,36,37,42,43,45,48,49,54	20
ET-CB688X0-P0000	TR KTB688-O	Q11,23,41,53,61,63,65,67	8
ET-CD718X0-N0000	TR KTD718-O	Q10,22,40,52,60,62,64,66	8
ET-FFZ44X0-X0000	MOSFET TR IRFZ 44N	Q28~30,55~59,68~71	12
EW-BG40XX0-01XCU	Copper connection plate 40MM	J64	3
EW-BG60XX0-01XCU	Copper connection plate 60MM	J109,136	4
EW-CS06XX0-05AA0	Jumper wire 6MM	J2,3,52,53,55,58,95,162,164~167,169,185,187,197	15
EW-CS07XX0-05AA0	Jumper wire 7MM	J71,76,78,81,92,93,101,113	8
EW-CS08XX0-05AA0	Jumper wire 8MM	J1,5,7~9,11~24,27,46,48,50,63,65,66,77,82,100,102,111,112,119,129,131, 135,155~157,179,180~183,189,190~196	51
EW-CS10XX0-05AA0	Jumper wire 10MM	J4,6,26,45,47,70,97,99,103,115,116,120,154,166,168,186,188,192,198	19
EW-CS12XX0-05AA0	Jumper wire 12MM	J31~44,60,89,125,127,128,137,138,172~177,203~214	39
EW-CS13XX0-05AA0	Jumper wire 13MM	J54,80,96,160	4
EW-CS15XX0-05AA0	Jumper wire 15MM	J10,67,110,72~74,79,98,117,118,122,130,139,140,141,159,161,170,171,178	20
EW-CS20XX0-05AA0	Jumper wire 20MM	J25,49,56,57,59,61,62,68,69,75,84~88,90,91,94,114,121,123,124, 132,133,142~153,163,184,199,215~220	45
EW-CS22XX0-05AA0	Jumper wire 22MM	J83,106~108	4
EW-CS25XX0-05AA0	Jumper wire 25MM	J28~30,104,105,126,134,158,200,201,203,	11
II-4558SX0-V0009	IC KA4558S	U1~3,U5~11	10
II-DBL494X-H0016	IC S-494P	U4	1
VR-BN503X0-V0A26	VR 50KB T12	VR1,2	2
VR-BN504X0-V0A26	VR 500KB T12	VR3~5	3